

Title:

Monitoring the Crab Nebula with LOFT

Presenter:

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Abstract:

From 2008-2010, the Crab Nebula was found to decline by 7% in the 15-50 keV band, consistently in Fermi GBM, INTEGRAL IBIS, SPI, and JEMX, RXTE PCA, and Swift BAT. From 2001-2010, the 15-50 keV flux from the Crab Nebula typically varied by about 3.5% per year. Analysis of RXTE PCA data suggests possible spectral variations correlated with the flux variations. I will present estimates of the LOFT sensitivity to these variations. Prior to 2001 and since 2010, the observed flux variations have been much smaller. Monitoring the Crab with the LOFT WFM and LAD will provide precise measurements of flux variations in the Crab Nebula if it undergoes a similarly active episode.